

Applicant : Anders Eriksson et al.
 Serial No. : 10/593,543
 Filed : September 20, 2006
 Page : 2 of 24

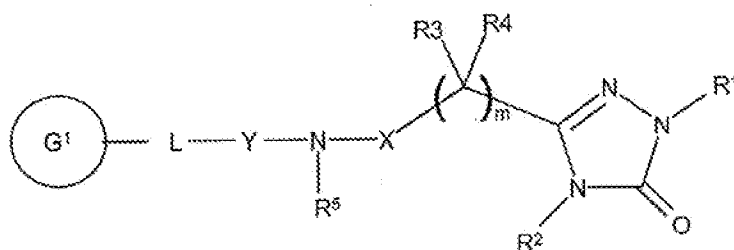
Attorney's Docket No.: 06275-522US1 / 101414-1P US

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound of formula (I) or a pharmaceutically acceptable salt thereof



(I)

wherein

R¹ and R² independently represent H or C1 to 6 alkyl; said alkyl being optionally further substituted by an aryl ring or an aromatic heterocyclic ring containing 1 to 3 heteroatoms independently selected from O, S and N; said aromatic ring being optionally further substituted by halogen, CF₃, C1 to 4 alkyl or C1 to 4 alkoxy;

Author Search

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 15:05:32 ON 02 OCT 2009

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FILE COVERS 1907 - 2 Oct 2009 VOL 151 ISS 15

FILE LAST UPDATED: 1 Oct 2009 (20091001/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

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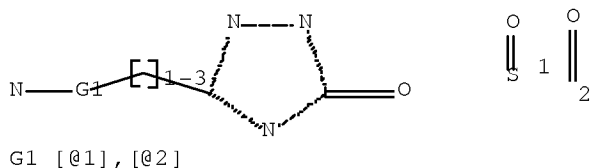
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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D STAT QUE L11

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L6 39 SEA FILE=REGISTRY SSS FUL L1

L8 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6

L9 535 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON ERIKSSON A?/AU

L10 10 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON LEPISTO M?/AU

Serial No.:10/593,543

L11 1 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L10 OR L9) AND L8

=> FILE WPIX

FILE 'WPIX' ENTERED AT 15:05:39 ON 02 OCT 2009

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FILE LAST UPDATED: 28 SEP 2009 <20090928/UP>

MOST RECENT UPDATE: 200962 <200962/DW>

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documents, but they can be identified by
specific update codes (see HELP CLA for details)<<<

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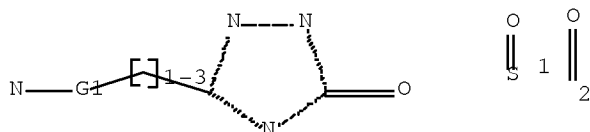
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http://www.stn-international.com/DWPIAnaVist2_0608.html

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<
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=> D STAT QUE L15

L1 STR



G1 [01], [02]

Structure attributes must be viewed using STN Express query preparation.

L9 535 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON ERIKSSON A?/AU

L10 10 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON LEPISTO M?/AU

L13 13 SEA FILE=WPIX SSS FUL L1

L14 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L13/DCR

L15 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON (L10 OR L9) AND L14

=> DUP REM L11 L15

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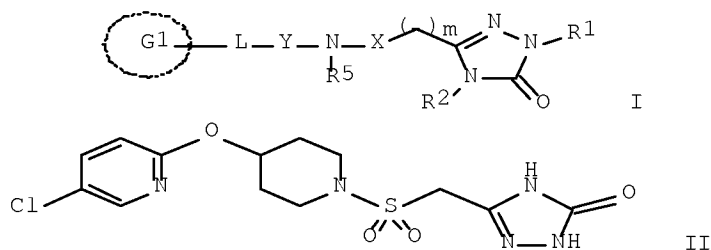
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 PROCESSING COMPLETED FOR L15
 L33 1 DUP REM L11 L15 (1 DUPLICATE REMOVED)
 ANSWER '1' FROM FILE HCAPLUS

=> D IBIB ED ABS HITSTR L33 1

L33 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2009 ACS on STN DUPLICATE 1
 ACCESSION NUMBER: 2005:1106854 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:387043
 TITLE: Preparation of triazolone derivatives as MMP
 inhibitors for the treatment of asthma
 INVENTOR(S): Eriksson, Anders; Lepistoe, Matti
 PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005095362	A1	20051013	WO 2005-SE448	20050329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1732903	A1	20061220	EP 2005-722275	20050329
EP 1732903	B1	20090218		
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1960979	A	20070509	CN 2005-80017672	20050329
JP 2007530672	T	20071101	JP 2007-506108	20050329
AT 423105	T	20090315	AT 2005-722275	20050329
ES 2320679	T3	20090527	ES 2005-722275	20050329
US 20070219217	A1	20070920	US 2006-593543	20060920
IN 2006DN05541	A	20070803	IN 2006-DN5541	20060922
HK 1099751	A1	20090508	HK 2007-105624	20070529
PRIORITY APPLN. INFO.:			SE 2004-850	A 20040330
			WO 2005-SE448	W 20050329
OTHER SOURCE(S):			CASREACT 143:387043; MARPAT 143:387043	
ED Entered STN:			14 Oct 2005	
GI				



AB Title compds. represented by the formula I [wherein R1, R2 = independently H, Cl or (un)substituted alkyl; R3, R4 = independently H, Cl, (un)substituted alkyl or R3R4 = (hetero)cyclyl; m = 1-3; X = SO, SO2 or CO; R5 = H, Cl or (un)substituted alkyl; Y = a direct bond or NR5Y = azacyclic ring; L = a direct bond, O, amino, etc.; G1 = (un)substituted cyclic ring; and pharmaceutically acceptable salts or solvates thereof] were prepared as metalloproteinase (MMP) inhibitors. For example, II was provided in a multi-step synthesis starting from the reaction of 5-(chloromethyl)-2,4-dihydro-3H-1,2,4-triazol-3-one with benzyl mercaptan. I were tested for inhibition of human MMP12, MMP9, MMP2, MMP19, MMP14 and MMP8. I and their pharmaceutical compns. are useful as MMP inhibitors for the treatment of asthma or other MMP-12 and/or MMP-9 mediated diseases (no data).

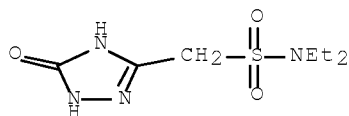
IT 866602-62-2P, N,N-Diethyl-1-(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methanesulfonamide

RL: BYP (Byproduct); PREP (Preparation)

(preparation of triazolone derivs. as MMP inhibitors for treatment of asthma)

RN 866602-62-2 HCAPLUS

CN 1H-1,2,4-Triazole-3-methanesulfonamide, N,N-diethyl-2,5-dihydro-5-oxo- (CA INDEX NAME)



IT 866602-59-7P, 5-[[[4-[(5-Chloropyridin-2-yl)oxy]piperidin-1-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-63-3P, 5-[2-[[4-[(5-Chloropyridin-2-yl)oxy]piperidin-1-yl]sulfonyl]ethyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-67-7P, 5-[3-[[4-[(5-Chloropyridin-2-yl)oxy]piperidin-1-yl]sulfonyl]propyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-71-3P, 5-[[[4-(4-Chlorophenyl)piperazin-1-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-72-4P, 5-[[[4-[(2-Methoxypyrimidin-5-yl)ethynyl]-3,6-dihydropyridin-1(2H)-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-73-5P, 5-[[[4-[[2-(Trifluoromethyl)pyrimidin-5-yl]ethynyl]-3,6-dihydropyridin-1(2H)-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-74-6P, 5-[[[4-[(2-Cyclopropylpyrimidin-5-yl)ethynyl]-3,6-dihydropyridin-1(2H)-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one

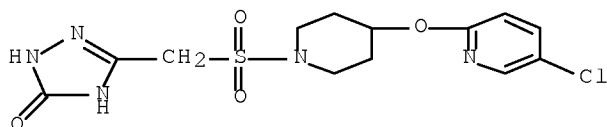
Serial No.:10/593,543

866602-75-7P, 5-[[[4-(4-Chlorophenyl)piperidin-1-yl]sulfonyl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 866602-76-8P, N-Benzyl-1-(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)methanesulfonamide 866602-77-9P,
 1-(5-Oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)-N-(2-phenylethyl)methanesulfonamide 866602-78-0P,
 5-[2-[[4-(4-Chlorophenyl)piperidin-1-yl]sulfonyl]ethyl]-2,4-dihydro-3H-1,2,4-triazol-3-one 866602-79-1P,
 5-[2-[[4-(4-Chlorophenyl)piperazin-1-yl]sulfonyl]ethyl]-2,4-dihydro-3H-1,2,4-triazol-3-one 866602-80-4P,
 5-[3-[[4-(4-Chlorophenyl)piperidin-1-yl]sulfonyl]propyl]-2,4-dihydro-3H-1,2,4-triazol-3-one 866602-81-5P,
 5-[3-[[4-(4-Chlorophenyl)piperazin-1-yl]sulfonyl]propyl]-2,4-dihydro-3H-1,2,4-triazol-3-one
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of triazolone derivs. as MMP inhibitors for treatment of asthma)

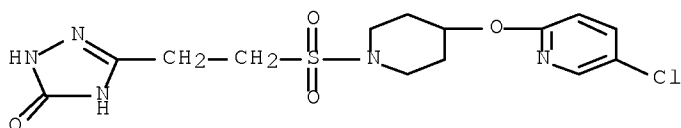
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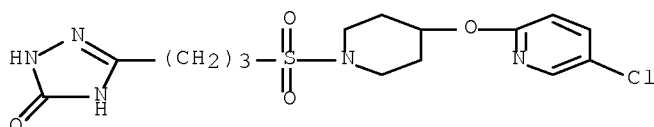
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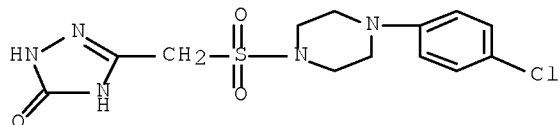
RN 866602-67-7 HCAPLUS

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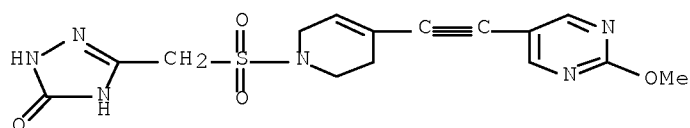
RN 866602-71-3 HCAPLUS

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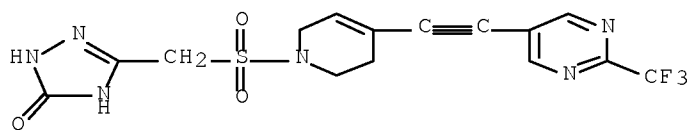
RN 866602-72-4 HCAPLUS

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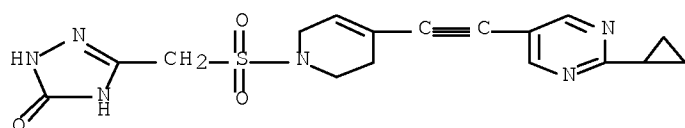
RN 866602-73-5 HCAPLUS

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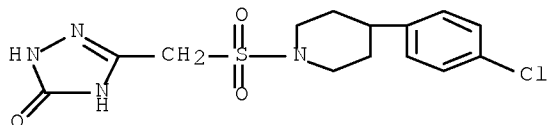
RN 866602-74-6 HCAPLUS

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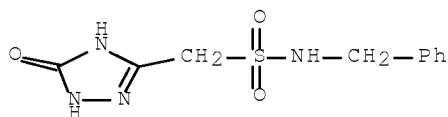
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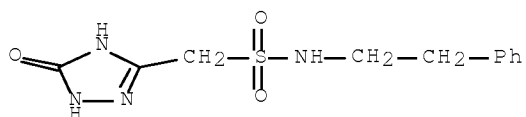
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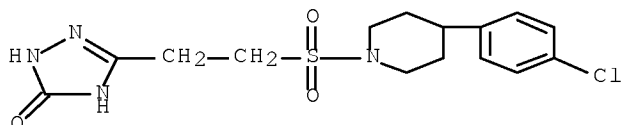
RN 866602-77-9 HCAPLUS

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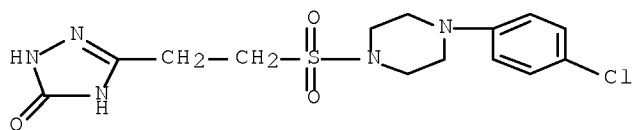
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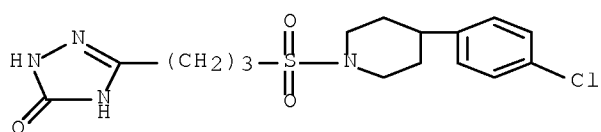
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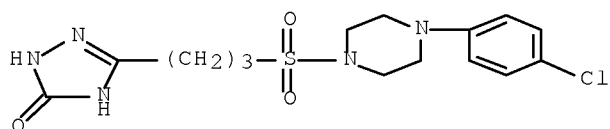
RN 866602-80-4 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[3-[[4-(4-chlorophenyl)-1-piperidinyl]sulfonyl]propyl]-1,2-dihydro- (CA INDEX NAME)



RN 866602-81-5 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[3-[[4-(4-chlorophenyl)-1-piperazinyl]sulfonyl]propyl]-1,2-dihydro- (CA INDEX NAME)



REFERENCE COUNT:

9

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Structure Search

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FILE COVERS 1907 - 2 Oct 2009 VOL 151 ISS 15

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REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

HCAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

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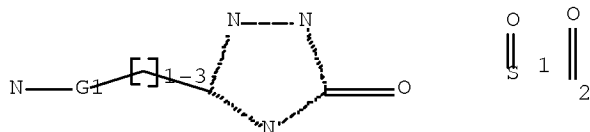
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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D STAT QUE L8

L1 STR



G1 [01], [02]

Structure attributes must be viewed using STN Express query preparation.

L6 39 SEA FILE=REGISTRY SSS FUL L1

L8 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6

=> S L8 NOT L11
L34 14 L8 NOT L11

=> FILE WPIX
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FILE LAST UPDATED: 28 SEP 2009 <20090928/UP>
MOST RECENT UPDATE: 200962 <200962/DW>
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>>> IPC, ECLA, US National Classifications and Japanese F-Terms
and FI-Terms have been updated with reclassifications to
mid-June 2009.
No update date (UP) has been created for the reclassified
documents, but they can be identified by
specific update codes (see HELP CLA for details)<<<

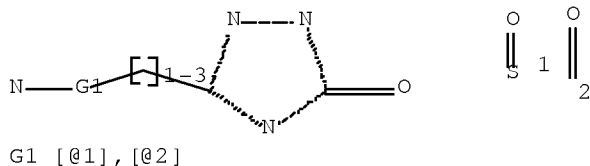
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>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<
'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D STAT QUE L14
L1 STR



Structure attributes must be viewed using STN Express query preparation.
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L14 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L13/DCR

=> S L14 NOT L15
L35 0 L14 NOT L15

=> FILE BEILSTEIN
FILE 'BEILSTEIN' ENTERED AT 15:06:49 ON 02 OCT 2009
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FILE LAST UPDATED ON May 17, 2009

FILE COVERS 1779 TO 2008.

*** FILE CONTAINS 10,593,281 SUBSTANCES ***

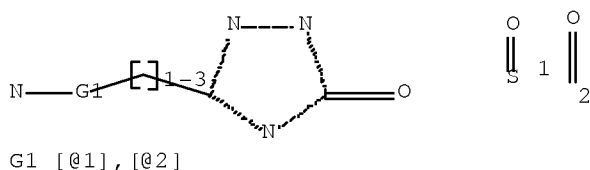
>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

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 * ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE *
 * ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. *
 * FOR PRICE INFORMATION SEE HELP COST *

>>> Price change as of January 1st, 2008: Connect Time and Structure Search fees re-introduced. See NEWS and HELP COST <<<

=> D STAT QUE L17
 L1 STR



Structure attributes must be viewed using STN Express query preparation.

L6 39 SEA FILE=REGISTRY SSS FUL L1
 L17 1 SEA FILE=BEILSTEIN SPE=ON ABB=ON PLU=ON L6

=> FILE BABS
 FILE 'BABS' ENTERED AT 15:06:59 ON 02 OCT 2009
 COPYRIGHT (c) 2009 Elsevier Information Systems GmbH

FILE LAST UPDATED: 11 MAY 2009 <20090511/UP>
 FILE COVERS 1980 TO DATE.

=> D STAT QUE L19
 L19 1 SEA FILE=BABS SPE=ON ABB=ON PLU=ON 5704055/BABSAN

=> DUP REM L34 L14 L19 L17

DUPLICATE IS NOT AVAILABLE IN 'BEILSTEIN'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

FILE 'HCAPLUS' ENTERED AT 15:07:19 ON 02 OCT 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'WPIX' ENTERED AT 15:07:19 ON 02 OCT 2009

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FILE 'BABS' ENTERED AT 15:07:19 ON 02 OCT 2009

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FILE 'BEILSTEIN' ENTERED AT 15:07:19 ON 02 OCT 2009

COPYRIGHT (c) 2009 Elsevier Information Systems GmbH

PROCESSING COMPLETED FOR L34

PROCESSING COMPLETED FOR L14

PROCESSING COMPLETED FOR L19

PROCESSING COMPLETED FOR L17

L36 17 DUP REM L34 L14 L19 L17 (0 DUPLICATES REMOVED)

ANSWERS '1-14' FROM FILE HCAPLUS

ANSWER '15' FROM FILE WPIX

ANSWER '16' FROM FILE BABS

ANSWER '17' FROM FILE BEILSTEIN

=> D IBIB ABS ED HITSTR 1-14; D IBIB AB QHIT 15; D ALL 16; D IDE ALLREF 17

L36 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:703033 HCAPLUS Full-text

DOCUMENT NUMBER: 151:56726

TITLE: Nitrogen-containing heterocyclic compounds as
tachykinin receptor antagonists and their preparation
and use in the treatment of diseases

INVENTOR(S): Ikeura, Yoshinori; Shirai, Junya; Sugiyama, Hideyuki;
Nishikimi, Yuji; Kamei, Taku; Sakauchi, Nobuki

PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan

SOURCE: PCT Int. Appl., 471pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2009072643	A1	20090611	WO 2008-JP72224	20081202
W:				
AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,				
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,				
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,				
KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,				
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,				
PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,				
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW:				
AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,				
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,				
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,				
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,				
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20090156572	A1	20090618	US 2008-314015	20081202

PRIORITY APPLN. INFO.:

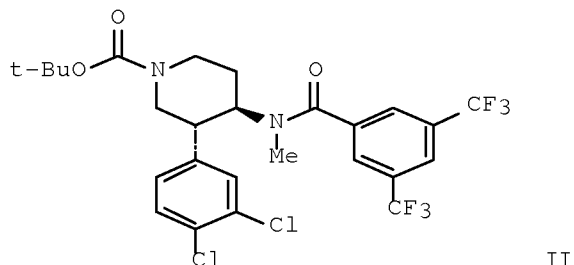
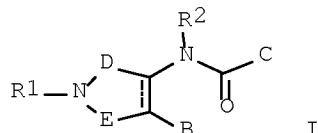
US 2007-996734P

P 20071203

OTHER SOURCE(S):

MARPAT 151:56726

GI



AB The invention relates to a compound represented by formula I, which has a superior tachykinin receptor antagonistic action, and is useful as an agent for the prophylaxis or treatment of various diseases such as lower urinary tract diseases, gastrointestinal diseases, central nervous system diseases and the like. Compsds. of formula I wherein B is (un)substituted aromatic ring; C is (un)substituted cyclic group; D is (CH₂)_n; and E is (CH₂)_m; m and n are independently 0 to 5, and m + n is an integer of 2 to 5; dashed bond is single or double bond; and salts thereof, are claimed. Example compound II was prepared by methylation of tert-Bu (3R*,4R*)-4-([3,5-bis(trifluoromethyl)phenyl]carbonyl)amino)-3-(3,4-dichlorophenyl)piperidine-1-carboxylate with Me iodide. All the invention compds. were evaluated for their tachykinin receptor antagonistic activity (some data given).

ED Entered STN: 11 Jun 2009

IT 1160255-89-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

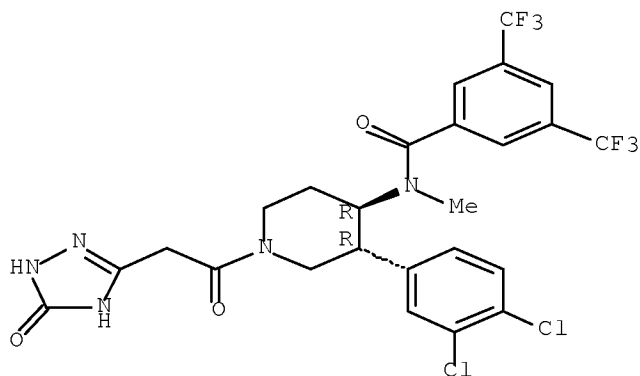
(preparation of nitrogen-containing heterocyclic compds. as tachykinin receptor

antagonists useful in the treatment of diseases)

RN 1160255-89-9 HCAPLUS

CN Benzamide, N-[(3R,4R)-3-(3,4-dichlorophenyl)-1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-4-piperidinyl]-N-methyl-3,5-bis(trifluoromethyl)- (CA INDEX NAME)

Absolute stereochemistry.

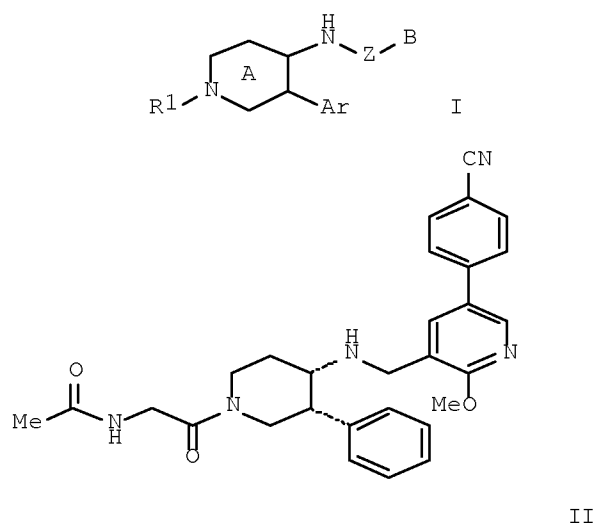


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:874350 HCAPLUS Full-text
 DOCUMENT NUMBER: 147:257652
 TITLE: Preparation of piperidine derivatives as tachykinin receptor antagonists
 INVENTOR(S): Shirai, Junya; Yoshikawa, Takeshi; Sugiyama, Hideyuki
 PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan
 SOURCE: PCT Int. Appl., 133pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007089031	A1	20070809	WO 2007-JP52160	20070201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2006-763894P P 20060201
 OTHER SOURCE(S): CASREACT 147:257652; MARPAT 147:257652
 GI



AB Title compds. I [Ar = (un)substituted phenyl; R1 = H, (un)substituted hydrocarbyl, acyl or heterocyclyl; Z = (un)substituted methylene; ring A = (un)substituted piperidine; B = (un)substituted monocyclic aromatic heterocyclyl with provisions that substituents may form a ring], and their pharmaceutically acceptable salts, prodrugs are prepared and disclosed as tachykinin receptor antagonists and useful as an agent for the prophylaxis or treatment of lower urinary tract disease and the like. Thus, e.g., II was prepared by condensation of N-[2-((3R,4S)-4-amino-3-phenylpiperidin-1-yl)-2-oxoethyl]acetamide methanesulfonate (preparation given) with 4-(5-formyl-6-methoxypyridin-3-yl)benzonitrile (preparation given) followed by reduction I have superior antagonistic activity, e.g., II showed IC₅₀ value of 0.015 nM.

ED Entered STN: 10 Aug 2007

IT 945954-65-4P 945954-79-0P

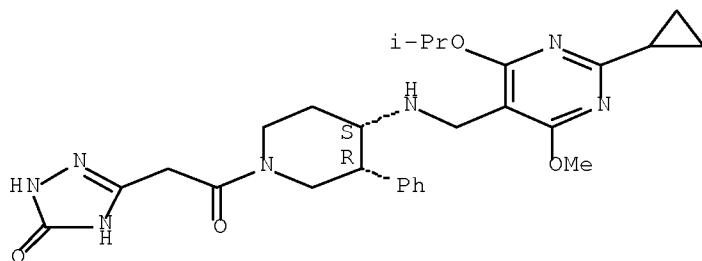
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperidine derivs. as tachykinin receptor antagonists)

RN 945954-65-4 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[2-[(3R,4S)-4-[[[2-cyclopropyl-4-methoxy-6-(1-methylethoxy)-5-pyrimidinyl]methyl]amino]-3-phenyl-1-piperidinyl]-2-oxoethyl]-1,2-dihydro- (CA INDEX NAME)

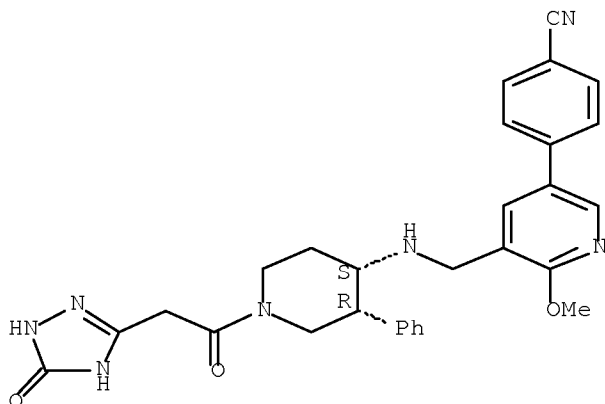
Absolute stereochemistry.



RN 945954-79-0 HCAPLUS

CN Benzonitrile, 4-[5-[[[(3R,4S)-1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-3-phenyl-4-piperidinyl]amino]methyl]-6-methoxy-3-pyridinyl]-
(CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:485967 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:482087

TITLE: Preparation of heterocyclic amide compounds as matrix metalloproteinase inhibitors

INVENTOR(S): Nara, Hiroshi; Kaieda, Akira; Sato, Kenjiro; Terauchi, Jun

PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan

SOURCE: PCT Int. Appl., 330pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

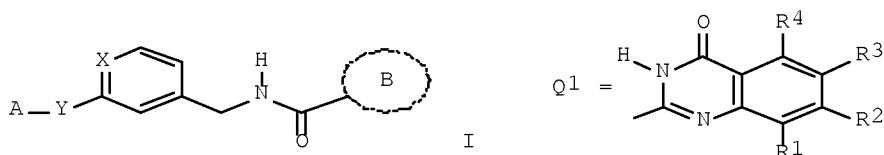
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007049820	A1	20070503	WO 2006-JP322043	20061027
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

Serial No.:10/593,543

AU 2006306991	A1	20070503	AU 2006-306991	20061027
CA 2627497	A1	20070503	CA 2006-2627497	20061027
EP 1953148	A1	20080806	EP 2006-822961	20061027
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
MX 2008005416	A	20080512	MX 2008-5416	20080425
US 20090137603	A1	20090528	US 2008-91773	20080428
IN 2008KN01865	A	20090109	IN 2008-KN1865	20080508
KR 2008066061	A	20080715	KR 2008-712886	20080528
NO 2008002411	A	20080728	NO 2008-2411	20080528
CN 101351453	A	20090121	CN 2006-80049861	20080630
PRIORITY APPLN. INFO.:			JP 2005-315267	A 20051028
			WO 2006-JP322043	W 20061027
OTHER SOURCE(S):			MARPAT 146:482087	
GI				



AB The title compds. I [A = zinc-binding group; X = CZ, N; Z = H, halo; Y = (un)substituted spacer having 2 to 10 atoms; ring B = Q1, etc.; R1 - R4 = H, halo, cyano, etc.; excluding 6 specific compds.] are prepared Thus, 4-oxo-N-[3-([2-((1H-1,2,4-triazol-3-ylthio)ethyl]oxy)phenyl)methyl]-3,4-dihydroquinazoline-2-carboxamide was prepared in several steps starting from 3-hydroxybenzonitrile and 1-bromo-2-chloroethane. In an in vitro assay, compds. of this invention at 1 μ M gave 81% to 100% inhibition of matrix metalloproteinase 13. Formulations are given.

ED Entered STN: 04 May 2007

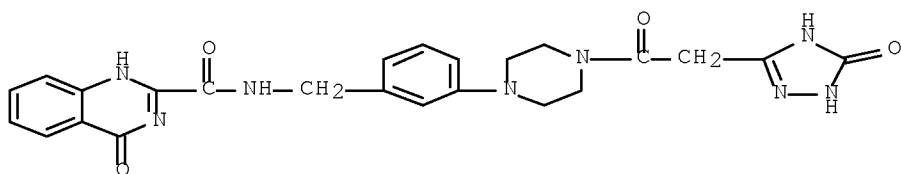
IT 935759-87-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterocyclic amide compds. as matrix metalloproteinase inhibitors)

RN 935759-87-8 HCAPLUS

CN 2-Quinazolinecarboxamide, N-[[3-[4-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-1-piperazinyl]phenyl)methyl]-3,4-dihydro-4-oxo- (CA INDEX NAME)

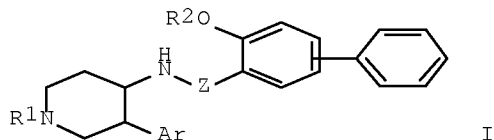


Serial No.:10/593,543

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:150254 HCAPLUS Full-text
DOCUMENT NUMBER: 146:206214
TITLE: Preparation of biphenylmethyaminopiperidines as
tachykinin receptor antagonists.
INVENTOR(S): Ikeura, Yoshinori; Shirai, Junya; Yoshikawa, Takeshi;
Sakauchi, Nobuki
PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan
SOURCE: PCT Int. Appl., 174pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007015588	A1	20070208	WO 2006-JP315899	20060804
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW</p> <p>RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM</p>				
EP 1910292	A1	20080416	EP 2006-782685	20060804
<p>R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR</p>				
JP 2009502739	T	20090129	JP 2008-505537	20060804
US 20070149570	A1	20070628	US 2007-701380	20070202
PRIORITY APPLN. INFO.:			JP 2005-227183	A 20050804
			WO 2006-JP315899	W 20060804
OTHER SOURCE(S): CASREACT 146:206214; MARPAT 146:206214				
GI				



AB Title compds. [I; Ar = (substituted) Ph; R1 = H, (substituted) hydrocarbyl,
acyl, heterocyclyl; R2 = H, (substituted) alkyl, cycloalkyl; Z = (alkyl-

substituted) methylene; all rings may be further substituted; with 2 specifically excluded compds.], were prepared Thus, N-[2-[(3R,4S)-4-[(4'-ethynyl-4-methoxybiphenyl-3-yl)methyl]amino]-3-phenylpiperidin-1-yl]-2-oxoethyl]acetamide (general preparation given) showed radioligand receptor binding inhibitory activity in IM-9 human lymphoblast cells with IC₅₀ = 0.015 nM.

ED Entered STN: 09 Feb 2007

IT 923280-44-8P 923280-84-6P

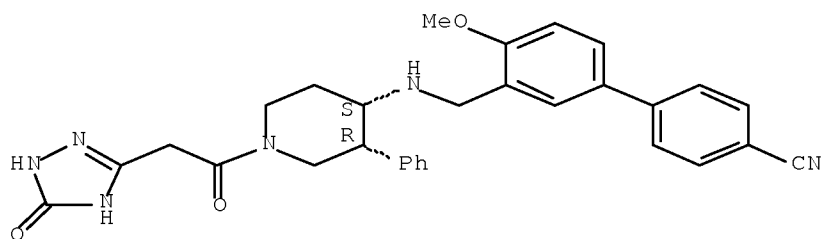
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of biphenylmethylaminopiperidines as tachykinin receptor antagonists)

RN 923280-44-8 HCAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 3'-[[[(3R,4S)-1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-3-phenyl-4-piperidinyl]amino]methyl]-4'-methoxy- (CA INDEX NAME)

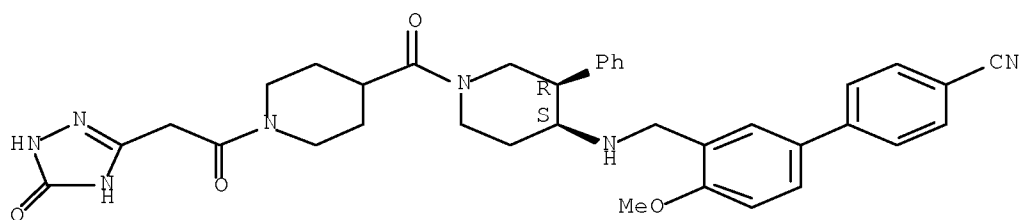
Absolute stereochemistry.



RN 923280-84-6 HCAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 3'-[[[(3R,4S)-1-[1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-4-piperidinyl]carbonyl]-3-phenyl-4-piperidinyl]amino]methyl]-4'-methoxy-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:705062 HCAPLUS [Full-text](#)

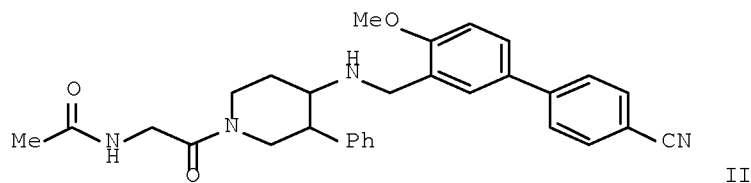
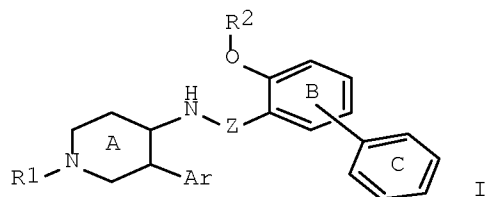
Serial No.:10/593,543

DOCUMENT NUMBER: 147:118148
 TITLE: Piperidine derivatives as tachykinin receptor antagonists and their preparation, pharmaceutical compositions and use in the treatment of lower urinary tract symptoms, gastrointestinal and central nerve disease
 INVENTOR(S): Ikeura, Yoshinori; Shirai, Junya; Yoshikawa, Takeshi; Sakauchi, Nobuki
 PATENT ASSIGNEE(S): Takeda Pharmaceutical Co., Ltd., Japan
 SOURCE: U.S. Pat. Appl. Publ., 89 pp., Cont.-in-part of Appl. No. PCT/JP2006/315899.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070149570	A1	20070628	US 2007-701380	20070202
WO 2007015588	A1	20070208	WO 2006-JP315899	20060804
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2005-227183 A 20050804
 WO 2006-JP315899 A2 20060804

OTHER SOURCE(S): MARPAT 147:118148
 GI



AB The invention relates to a compound represented by formula I or a salt thereof. Compds. of formula I wherein Ar is (un)substituted Ph; R1 is H, (un)substituted hydrocarbon, acyl and (un)substituted heterocyclic group; R2 is H, (un)substituted C1-6 alkyl and (un)substituted C3-6 cycloalkyl; Z is (un)substituted methylene; ring A is a (un)substituted piperidine ring; ring B and ring C are (un)substituted benzene; R2 optionally form a ring together with the adjacent substituent on the ring B; and their salts thereof, are claimed. The compound of the invention has a superior tachykinin receptor antagonistic action, particularly a substance P receptor antagonistic action, and is useful as a pharmaceutical agent, for example, tachykinin receptor antagonist, an agent for the prophylaxis or treatment of lower urinary tract symptoms, gastrointestinal diseases or central nerve diseases. Example compound II was prepared by a general procedure (procedure given). All the invention compds. were evaluated for their tachykinin receptor antagonistic activity. From the assay, it was determined that compound II exhibited an IC50 value of 0.019 nM.

ED Entered STN: 29 Jun 2007

IT 923280-44-8P 923280-84-6P

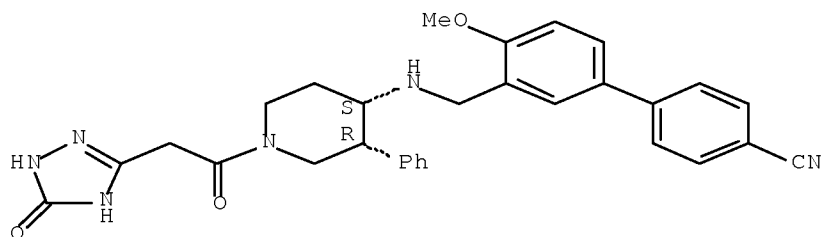
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperidine derivs. as tachykinin receptor antagonists and their use in the treatment of lower urinary tract symptoms, gastrointestinal and central nerve disease)

RN 923280-44-8 HCAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 3'--[[(3R,4S)-1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-3-phenyl-4-piperidinyl]amino]methyl]-4'-methoxy- (CA INDEX NAME)

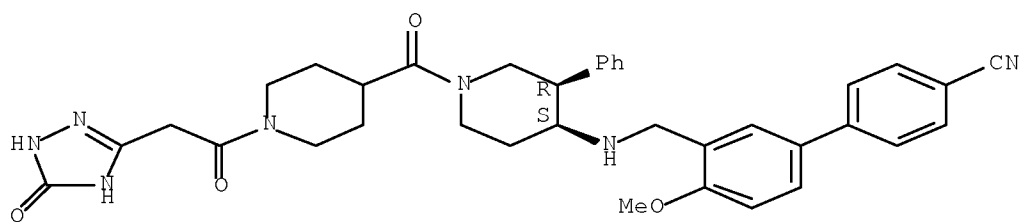
Absolute stereochemistry.



RN 923280-84-6 HCAPLUS

CN [1,1'-Biphenyl]-4-carbonitrile, 3'--[[(3R,4S)-1-[1-[2-(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)acetyl]-4-piperidinyl]carbonyl]-3-phenyl-4-piperidinyl]amino]methyl]-4'-methoxy-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

L36 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:1155411 HCAPLUS Full-text
 DOCUMENT NUMBER: 145:471540
 TITLE: Preparation of piperidine derivatives as tachykinin receptor antagonists
 INVENTOR(S): Nagaoka, Naomi; Marunaka, Shigeyuki; Fukuta, Makoto
 PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan
 SOURCE: PCT Int. Appl., 323pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006115285	A1	20061102	WO 2006-JP308919	20060421
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2005-124335 A 20050421
 OTHER SOURCE(S): MARPAT 145:471540

AB The title compds. (no biol. data) are prepared This document discloses a pharmaceutical composition comprising N-(2-[(3R,4S)-4-((2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]benzyl)amino)-3-phenylpiperidin-1-yl]-2-oxoethyl)acetamide (I), a salt or a prodrug thereof, a sugar and a hydrophilic water-insol. substance. Thus, N-(2-[(3R,4S)-4-((2-hydroxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]benzyl)amino)-3-phenylpiperidin-1-yl]-2-oxoethyl)acetamide was prepared in 3 steps from (3R,4S)-4-amino-3-phenylpiperidine-1-carboxylic acid tert-Bu ester and 2-hydroxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]benzaldehyde. Formulations containing I are given. Tablets containing I showed high elution stability.

ED Entered STN: 03 Nov 2006

IT 632352-46-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

Serial No.:10/593,543

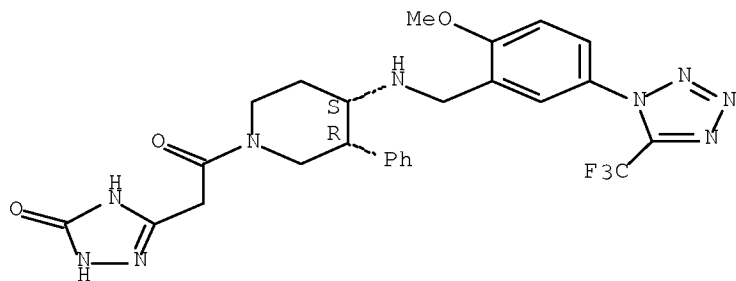
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidine derivs. as tachykinin receptor antagonists)

RN 632352-46-6 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 1,2-dihydro-5-[2-[(3R,4S)-4-[[[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]phenyl]methyl]amino]-3-phenyl-1-piperidiny]-2-oxoethyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:272922 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 144:331270

TITLE: Preparation of piperidine derivatives as tachykinin receptor antagonists

INVENTOR(S): Ikeura, Yoshinori; Hashimoto, Tadatoshi; Nishida, Haruyuki; Shirai, Junya; Sakauchi, Nobuki

PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan

SOURCE: PCT Int. Appl., 222 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

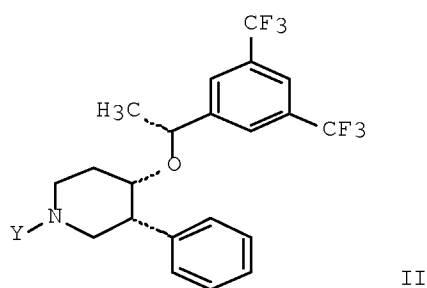
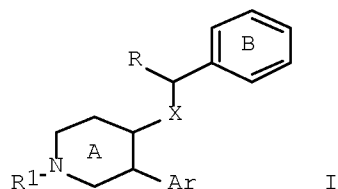
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006030975	A1	20060323	WO 2005-JP17538	20050916
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1790636	A1	20070530	EP 2005-785870	20050916
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			

Serial No.:10/593,543

US 20060142337 A1 20060629 US 2006-358070 20060222
 PRIORITY APPLN. INFO.: JP 2004-272639 A 20040917
 WO 2005-JP17538 W 20050916
 OTHER SOURCE(S): MARPAT 144:331270
 GI



AB Title compds. I [Ar = (un)substituted aryl; R = alkyl; R1 = H, (un)substituted hydrocarbon, acyl, etc.; X = O, (un)substituted imino; ring A = piperidine ring which may have an addnl. substituent; ring B = substituted benzene] were prepared For example, compound II [Y = H]·HCl was prepared from (3R,4S)-4-hydroxy-3-phenylpiperidine-1- carboxylic acid tert-Bu ester in a multistep process. In radioligand receptor binding inhibition assays, compound II [Y = (1-acetylpiperidin-4-yl)carbonyl] exhibited the IC50 value of 0.026 nM. Compds. I are claimed useful for the treatment of irritable bowel disease, depression, etc.

ED Entered STN: 24 Mar 2006

IT 880092-22-8P 880092-48-8P 880092-89-7P

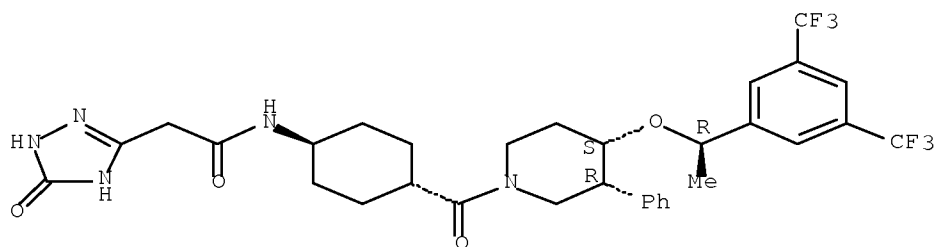
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidine derivs. as tachykinin receptor antagonists for treatment of irritable bowel disease, depression, etc.)

RN 880092-22-8 HCAPLUS

CN 1H-1,2,4-Triazole-3-acetamide, N-[trans-4-[[(3R,4S)-4-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy]-3-phenyl-1-piperidinyl]carbonyl]cyclohexyl]-2,5-dihydro-5-oxo- (CA INDEX NAME)

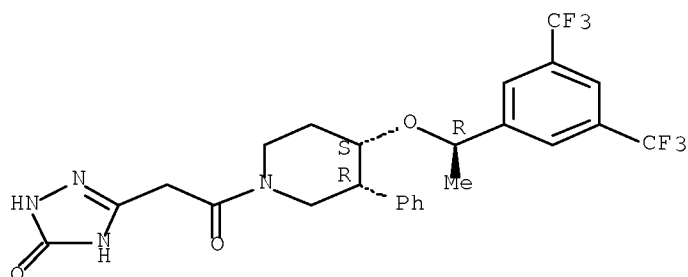
Absolute stereochemistry.



RN 880092-48-8 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[2-[(3R,4S)-4-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy]-3-phenyl-1-piperidinyl]-2-oxoethyl]-1,2-dihydro- (CA INDEX NAME)

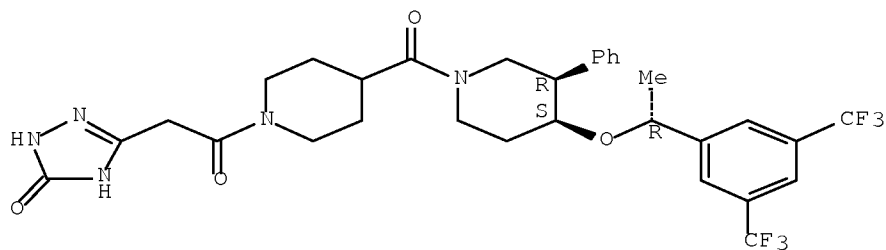
Absolute stereochemistry.



RN 880092-89-7 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 5-[2-[4-[[(3R,4S)-4-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy]-3-phenyl-1-piperidinyl]carbonyl]-1-piperidinyl]-2-oxoethyl]-1,2-dihydro- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

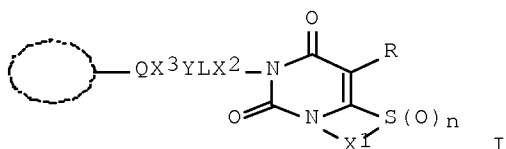
ACCESSION NUMBER: 2004:472319 HCAPLUS [Full-text](#)

Serial No.:10/593,543

DOCUMENT NUMBER: 141:47322
 TITLE: Sulfur heterocycle-condensed pyrimidinedione derivatives, prodrugs of them, JNK inhibitors containing them, and pharmaceuticals containing them
 INVENTOR(S): Ito, Fumio; Kimura, Hiroyuki; Ikata, Hideki; Kitamura, Shuji; Kawamoto, Tomohiro; Abe, Hidenori
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 117 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004161716	A	20040610	JP 2002-332027	20021115
PRIORITY APPLN. INFO.:			JP 2002-332027	20021115
OTHER SOURCE(S):	MARPAT	141:47322		

GI



AB The derivs., useful for prevention and treatment of diseases involving JNK, e.g. cardiac failure, hypertension, rheumatoid arthritis, asthma, Alzheimer's disease, ischemia, etc., are represented by I [R = H, (un)substituted hydrocarbyl, (un)substituted heterocyclyl; X1, X2 = (un)substituted C2-4 alkylene; X3 = direct bond, (un)substituted C1-5 alkylene, (un)substituted C2-4 alkenylene; Y = direct bond, (un)substituted divalent cyclic group; Q = direct bond, O, S, NR1 [R1 = H, (un)substituted lower alkyl]; L = direct bond, CONR2 [R2 = H, (un)substituted lower alkyl]; ring A = (un)substituted N-heterocycle; n = 0, 1, 2]. JNK inhibitors contain I, their salts, or prodrugs of I. Thus, IC50 of 4-(6-aminopyridin-3-yl)-N-[3-(1,1,6,8-tetraoxo-9-phenyl-1,3,4,8-tetrahydro-2H-1λ6-pyrimido[6,1-b][1,3]thiazin-7-yl)propyl]benzamide hydrochloride (II preparation given) against human JNK1 was 0.00082 μM. Capsules and tablets containing II were also formulated.

ED Entered STN: 11 Jun 2004

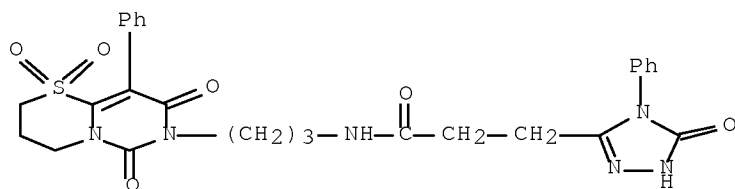
IT 701215-97-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfur heterocycle-condensed pyrimidinedione derivs. as JNK inhibitors)

RN 701215-97-6 HCAPLUS

CN 1H-1,2,4-Triazole-3-propanamide, N-[3-(3,4-dihydro-1,1-dioxido-6,8-dioxo-9-phenyl-2H,6H-pyrimido[6,1-b][1,3]thiazin-7(8H)-yl)propyl]-4,5-dihydro-5-oxo-4-phenyl- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD
(3 CITINGS)

L36 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:972057 HCAPLUS Full-text

DOCUMENT NUMBER: 140:27765

TITLE: Preparation of piperidine derivatives as tachykinin
receptor antagonists for treatment of frequent
urination and urinary incontinence

INVENTOR(S): Ikeura, Yoshinori; Hashimoto, Tadatoshii; Tarui, Naoki;
Shirai, Junya; Yamashita, Masayuki

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 264 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

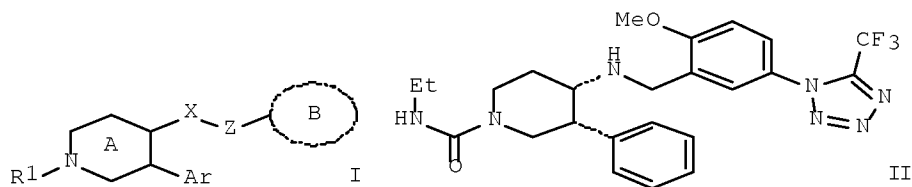
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101964	A1	20031211	WO 2003-JP6754	20030529
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2487688	A1	20031211	CA 2003-2487688	20030529
AU 2003241903	A1	20031219	AU 2003-241903	20030529
BR 2003011425	A	20050315	BR 2003-11425	20030529
EP 1553084	A1	20050713	EP 2003-733151	20030529
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1671662	A	20050921	CN 2003-818354	20030529
NZ 537330	A	20070427	NZ 2003-537330	20030529
JP 2004285038	A	20041014	JP 2003-154345	20030530
MX 2004011730	A	20050714	MX 2004-11730	20041125
US 20060167052	A1	20060727	US 2004-516252	20041129
ZA 2004010085	A	20060726	ZA 2004-10085	20041214
IN 2004KN01942	A	20061201	IN 2004-KN1942	20041216
NO 2004005701	A	20050216	NO 2004-5701	20041229
PRIORITY APPLN. INFO.:			JP 2002-159338	A 20020531
			JP 2003-17885	A 20030127
			WO 2003-JP6754	W 20030529

OTHER SOURCE(S):
GI

MARPAT 140:27765



AB The title compds. I [wherein Ar = (un)substituted aryl, aralkyl, or heteroaryl; R1 = H, acyl, (un)substituted hydrocarbyl, or heterocyclyl; X = O or (un)substituted NH; Z = (un)substituted CH2; ring A = (un)substituted piperidine; ring B = (un)substituted aryl; with exclusions] or prodrugs or salts thereof are prepared I have excellent tachykinin receptor antagonistic activity, and are useful for the treatment of frequent urination and urinary incontinence (no data). For example, the compound II•xHCl was prepared in a multi-step synthesis. II showed antagonistic activity with IC50 of 0.025 nM against human substance P receptor. Formulations containing I as an active ingredient were also described.

ED Entered STN: 14 Dec 2003

IT 632352-46-6P

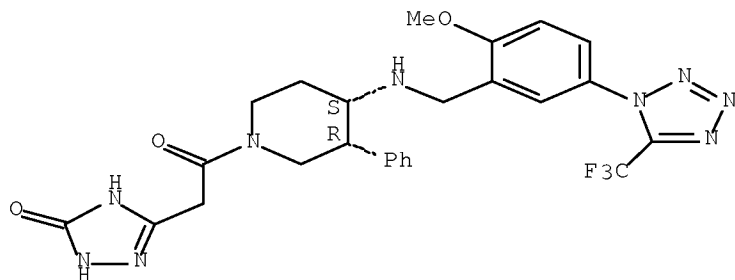
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of piperidine derivs. as tachykinin receptor antagonists for treatment of frequent urination and urinary incontinence)

RN 632352-46-6 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 1,2-dihydro-5-[2-[(3R,4S)-4-[[[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]phenyl]methyl]amino]-3-phenyl-1-piperidinyl]-2-oxoethyl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

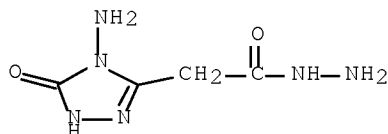


OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Serial No.:10/593,543

ACCESSION NUMBER: 1997:281511 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:17627
 ORIGINAL REFERENCE NO.: 127:3561a,3564a
 TITLE: Synthesis and antibacterial activities of some
 4,5-dihydro-1H-1,2,4-triazol-5-ones
 AUTHOR(S): Yuksek, Haydar; Demirbas, Ahmet; Ikizler, Aysun;
 Johansson, Candan Bozok; Celik, Cennet; Ikizler, Aykut
 A.
 CORPORATE SOURCE: Department Chemistry, Karadeniz Technical University,
 Trabzon, 61080, Turk.
 SOURCE: Arzneimittel-Forschung (1997), 47(4), 405-409
 CODEN: ARZNAD; ISSN: 0004-4172
 PUBLISHER: Cantor
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A series of 3,4-disubstituted 1-methyl- and 1-ethyl-4,5-dihydro-1H-1,2,4-
 triazol-5-ones was prepared by reaction of the appropriate dihydrotriazolones
 with Me₂SO₄ or Et₂SO₄. Some of these new and some recently reported 4,5-
 dihydro-1H-1,2,4-triazol-5-ones exhibited antibacterial and tuberculostatic
 activities.
 ED Entered STN: 02 May 1997
 IT ~~75989-59-2~~
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); BIOL (Biological study)
 (antibacterial activity)
 RN 75989-59-2 HCAPLUS
 CN 1H-1,2,4-Triazole-3-acetic acid, 4-amino-4,5-dihydro-5-oxo-, hydrazide
 (CA INDEX NAME)



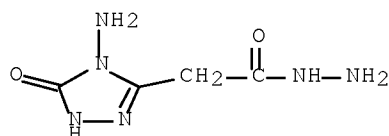
OS.CITING REF COUNT: 64 THERE ARE 64 CAPLUS RECORDS THAT CITE THIS
 RECORD (64 CITINGS)

L36 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1992:173458 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 116:173458
 ORIGINAL REFERENCE NO.: 116:29339a,29342a
 TITLE: pK'a values of some 1,2,4-triazole derivatives in
 nonaqueous media
 AUTHOR(S): Ikizler, A. Aykut; Senturk, H. Basri; Ikizler, Aysun
 CORPORATE SOURCE: Dep. Chem., Karadeniz Tech. Univ., Trabzon, Turk.
 SOURCE: Doga: Turk Kimya Dergisi (1991), 15(4), 345-54
 CODEN: DKSEE7; ISSN: 1010-7614
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The pK'a values of some 1,2,4-triazole derivs. were determined
 potentiometrically by using 2-propanol solvent and tetrabutylammonium
 hydroxide (TBAH) in 2-propanol as titrant.
 ED Entered STN: 03 May 1992
 IT ~~75989-59-2~~
 RL: PRP (Properties)

(acidity of, in isopropanol)

RN 75989-59-2 HCAPLUS

CN 1H-1,2,4-Triazole-3-acetic acid, 4-amino-4,5-dihydro-5-oxo-, hydrazide
(CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L36 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:492870 HCAPLUS Full-text

DOCUMENT NUMBER: 109:92870

ORIGINAL REFERENCE NO.: 109:15497a,15500a

TITLE: Synthesis of azoles and fused azoles from α -arylhydrazononitriles

AUTHOR(S): Ibrahim, Mohamed Kamal Ahmed; El-Moghayar, Mohamed Riffat Hamza

CORPORATE SOURCE: Fac. Sci., Cairo Univ., Giza, Egypt

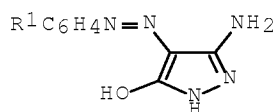
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1987), 26B(9), 832-5
CODEN: IJSBDB; ISSN: 0376-4699

DOCUMENT TYPE: Journal

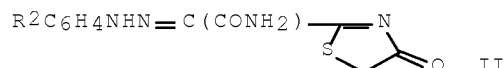
LANGUAGE: English

OTHER SOURCE(S): CASREACT 109:92870

GI



I



II

AB Cyanoacetamides $R_1C_6H_4NHN:C(CONH_2)CN$ ($R_1 = H, Me, Cl$) were heated with N_2H_4 to give pyrazoles I. Also prepared, from cyanoacetamides and $HSCH_2CO_2H$, were thiazolinones II ($R_2 = Cl, CO_2H$).

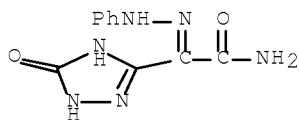
ED Entered STN: 17 Sep 1988

IT 115998-45-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 115998-45-3 HCAPLUS

CN 1H-1,2,4-Triazole-3-acetamide, 2,5-dihydro-5-oxo- α -(2-phenylhydrazinyldene)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

L36 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1981:15645 HCAPLUS Full-text

DOCUMENT NUMBER: 94:15645

ORIGINAL REFERENCE NO.: 94:2619a,2622a

TITLE: Reactions of ester ethoxycarbonylhydrazones with some amine type compounds

AUTHOR(S): Ikizler, Aykut; Un, Resat

CORPORATE SOURCE: Fac. Chem., Ege Univ., Izmir, Turk.

SOURCE: Chimica Acta Turcica (1979), 7(3), 269-90

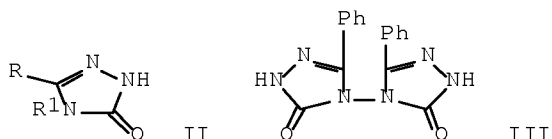
CODEN: CATUA9; ISSN: 0379-5896

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 94:15645

GI



AB EtOCR:NNHCO2Et (I, R = Ph, Me, Et, Pr, Me2CHCH2CH2, PhCH2, p-MeC6H4, CH2CO2Et) were cyclized with H2NNH2.H2O to give the triazolinones II (R1 = NH2), which were condensed with PhCHO to give II (R1 = N:CHPh). I and PhNHNH2 similarly gave II (R1 = PhNH). II (R1 = NH2) were converted to several derivs. e.g. II (R1 = NHBz) and III. I (R = Me, Ph) reacted with HOCH2CH2NH2 to give II (R1 = CH2CH2OH).

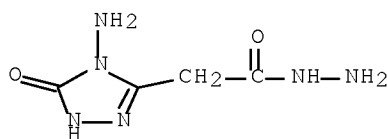
ED Entered STN: 12 May 1984

IT 75989-59-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

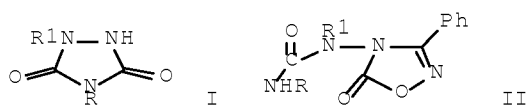
RN 75989-59-2 HCAPLUS

CN 1H-1,2,4-Triazole-3-acetic acid, 4-amino-4,5-dihydro-5-oxo-, hydrazide
(CA INDEX NAME)



OS.CITING REF COUNT: 39 THERE ARE 39 CAPLUS RECORDS THAT CITE THIS RECORD (43 CITINGS)

L36 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1977:468245 HCAPLUS Full-text
 DOCUMENT NUMBER: 87:68245
 ORIGINAL REFERENCE NO.: 87:10865a,10868a
 TITLE: Structural elucidation of the reaction products from benzonitrile oxide and 1,4-disubstituted urazoles
 AUTHOR(S): Hoyer, Georg A.; Boroschewski, Gerhard
 CORPORATE SOURCE: Forschungslab., Schering A.-G., Berlin, Fed. Rep. Ger.
 SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1977), 310(3), 255-9
 CODEN: ARPMAS; ISSN: 0365-6233
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 GI



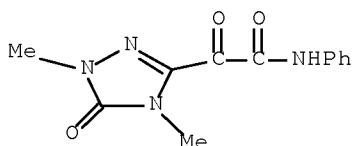
AB The reaction of benzonitrile oxide with urazoles (I; R = R1 = Me; R = Ph, R1 = Me; R = Me, R1 = Ph; R = R1 = Ph) does not yield the corresponding 1,4-disubstituted 3-(phenylcarbamoyloxy)-Δ2-1,2,4-triazolin-5-ones as previously reported (Sunderdiek, R. et al, 1974), but leads to oxadiazolinones (II; R, R1 as above).

ED Entered STN: 12 May 1984

IT ~~63425-53-6~~
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxadiazolinones vs., as reaction products of benzonitrile oxide and urazoles)

RN 63425-53-6 HCAPLUS

CN 1H-1,2,4-Triazole-3-acetamide, 4,5-dihydro-1,4-dimethyl-α,5-dioxo-N-phenyl- (CA INDEX NAME)



L36 ANSWER 15 OF 17 WPIX COPYRIGHT 2009 THOMSON REUTERS on STN
 ACCESSION NUMBER: 2005-734179 [75] WPIX
 DOC. NO. CPI: C2005-223965 [75]
 TITLE: New triazolone derivatives useful for the treatment of
 obstructive airways disease e.g. asthma or chronic
 obstructive pulmonary disease
 DERWENT CLASS: B02; B03
 INVENTOR: ERIKSSON A; LEPISTOE M; LEPISTO M
 PATENT ASSIGNEE: (ASTR-C) ASTRAZENECA AB; (ERIK-I) ERIKSSON A; (LEPI-I)
 LEPISTO M
 COUNTRY COUNT: 108

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005095362	A1	20051013	(200575)*	EN	53	[0]
EP 1732903	A1	20061220	(200702)	EN		
CN 1960979	A	20070509	(200760)	ZH		
US 20070219217	A1	20070920	(200763)	EN		
IN 2006DN05541	P1	20070803	(200771)	EN		
JP 2007530672	W	20071101	(200780)	JA	35	
EP 1732903	B1	20090218	(200914)	EN		
DE 602005012811	E	20090402	(200927)	DE		
ES 2320679	T3	20090527	(200943)	ES		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005095362	A1	WO 2005-SE448	20050329
IN 2006DN05541	P1	WO 2004-SE448	20050329
CN 1960979	A	CN 2005-80017672	20050329
DE 602005012811	E	DE 2005-602005012811	20050329
EP 1732903	A1	EP 2005-722275	20050329
EP 1732903	B1	EP 2005-722275	20050329
DE 602005012811	E	EP 2005-722275	20050329
EP 1732903	A1	WO 2005-SE448	20050329
US 20070219217	A1	WO 2005-SE448	20050329
JP 2007530672	W	WO 2005-SE448	20050329
EP 1732903	B1 PCT Application	WO 2005-SE448	20050329
DE 602005012811	E PCT Application	WO 2005-SE448	20050329
US 20070219217	A1	US 2006-593543	20060920
IN 2006DN05541	P1	IN 2006-DN5541	20060922
JP 2007530672	W	JP 2007-506108	20050329
ES 2320679	T3	EP 2005-722275	20050329

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 602005012811	E	EP 1732903
EP 1732903	A1	WO 2005095362
JP 2007530672	W	WO 2005095362
EP 1732903	B1	WO 2005095362

Serial No.:10/593,543

DE 602005012811 E Based on WO 2005095362 A
ES 2320679 T3 Based on EP 1732903 A

PRIORITY APPLN. INFO: SE 2004-850 20040330

AB WO 2005095362 A1 UPAB: 20090307

NOVELTY - Triazolone derivatives are new.

DETAILED DESCRIPTION - Triazolone derivatives of formula (I) or its salt or solvate are new.

R1,R2 = H or 1-6C alkyl (optionally substituted by an aryl ring or an aromatic heterocyclic ring containing 1-3 heteroatoms selected from O, S or N (optionally substituted by halo, CF₃, 1-4C alkyl or 1-4C alkoxy));

R3,R4 = H or 1-6C alkyl (optionally substituted by OH, 1-4C alkoxy, 1-4C alkylthio, amino, N-alkylamino or N,N-dialkylamino);

R3+R4 = 3-7 membered ring (optionally incorporating one heteroatom selected from O, S(O)q or N);

m = 1-3;

X = S(O), S(O)₂ or C(=O);

R5 = H or 1-6C alkyl (optionally substituted by halo, OH or 1-6C alkoxy);

Y = direct bond;

NYR5 = 4-7 membered optionally saturated azacyclic ring (optionally incorporating one further heteroatom selected from O, S(O)_n or N and optionally benzo fused and optionally substituted by 1-6C alkyl, 1-6C alkoxy or OH);

L = direct bond or 2-6C alkynyl, 2-6C alkenyl, 1-6C (hetero)alkyl, or 3-6C heteroalkynyl (all optionally substituted by halo, OH or 1-6C alkoxy), O, S(O)p, C(O), NR₆, C(O)NR₆ or NR₆C(O);

n,p,q = 0-2;

G1 = 1-4 membered monocyclic, bicyclic, tricyclic or tetracyclic group (where each ring structures is of 7 ring atoms) selected from cycloalkyl, cycloalkenyl, optionally saturated heterocycloalkyl (where all alkyl is optionally substituted by halo, OH, 1-6C alkyl, 1-6C alkoxy, halo-(1-6C) alkoxy, amino, N-alkylamino, N,N-dialkylamino, N-alkylsulfonamino, N-2-6C alkanoylamino, cyano, nitro, thiol, alkylthio, alkylsulfonyl, N-alkylaminosulfonyl, CHO, 2-6C alkanoyl, aminocarbonyl, N-alkylamino-carbonyl or N,N-dialkylaminocarbonyl or carbamate), aryl, or aromatic heterocyclic ring containing 1-3 heteroatoms selected from O, S or N (where each ring is optionally substituted by at least one of halo, OH, CHO, 1-6C alkyl, 1-6C alkoxy, halo-(1-6C) alkoxy, amino, N-alkylamino, N,N-dialkylamino, alkylsulfonamino, 2-6C alkanoylamino, cyano, nitro, thiol, alkylthio, alkylsulfonyl, alkylaminosulfonyl, 2-6C alkanoyl, aminocarbonyl, N-alkylamino-carbonyl or N,N-amino-carbonyl);

R6,R7 = H or 1-6C alkyl.

Provided that:

(1) when G1 is bicyclic, tricyclic or tetracyclic group, then each ring structure is joined to the next ring structure by a direct bond, -O-, 1-6C alkyl, 1-6C haloalkyl, 1-6C heteroalkyl, 2-6C alkenyl, 2-6C alkynyl, sulfone, CO, NR₇CO, CONR₇, NR₇, S or C(OH) and each ring is fused to the next ring structure; and

(2) when -NR₅Y- represents an azacyclic ring and L represents a direct bond, the group G1 is spiro fused to the azacyclic ring.

INDEPENDENT CLAIMS are also included for:

(1) the preparation of (I); and

(2) a pharmaceutical composition comprising compounds of (I) and an adjuvant, diluent or carrier.

ACTIVITY - Antiasthmatic; Respiratory-Gen.; Antiarthritic; Antirheumatic; Osteopathic; Antiarteriosclerotic; Vasotropic; Cytostatic; Antiinflammatory; Cardiant; Hepatotropic; Nephrotropic; Virucide; Gynecological; CNS-Gen.; Neuroprotective; Nootropic; hemostatic.

MECHANISM OF ACTION - Metalloproteinase (MMP) inhibitor (e.g. (MMP12) and (MMP9)); TACE and aggrecanase inhibitors. Isolated enzyme assay was carried out as follows: Recombinant human MMP12 catalytic domain was purified. The purified enzyme was used to monitor inhibitor of activity of MMP12 (50 ng/ml) which was incubated for 60 minutes at room temperature with the synthetic substrate Mac-Pro-Cha-Gly-Nva-His-Ala-Dpa-NH₂) in Tris-HCl (RTM; assay buffer) (0.1 M), pH 7.3 containing NaCl (0.1 M), CaCl₂ (20 mM), ZnCl₂ (0.020 mM) and Brij 35 (RTM detergent) (0.05 w/v.%) in the presence of 5-(((4-((2-(trifluoromethyl)pyrimidin-5-yl)ethynyl)-3,6-dihydropyridin-1(2H)-yl)sulfonyl)methyl)-2,4-dihydro-3H-1,2,4-triazol-3-one (test compound). The IC₅₀ value of the test compound was found to be 2.4 nM.

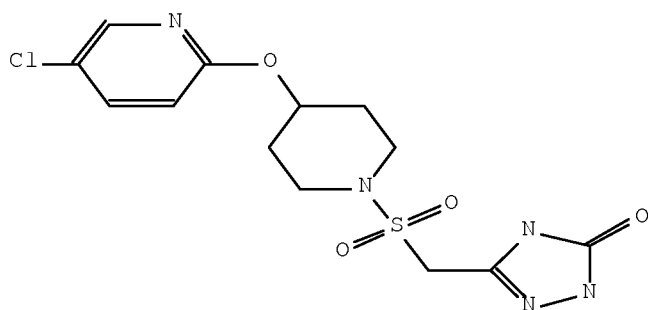
USE - In therapy; in the manufacture of a medicament for the treatment of obstructive airways disease e.g. asthma or chronic obstructive pulmonary disease; for the treatment of disease or condition mediated by metalloproteinases e.g. metalloelastase (MMP12) and gelatinase (MMP9) (all claimed); as metalloproteinase (MMP) inhibitors; as inhibitors of TACE and aggrecanase; as pharmaceuticals. The disease or conditions includes rhinitis, arthritis (such as rheumatoid arthritis and osteoarthritis), atherosclerosis, and restenosis, cancer, invasion and metastasis, diseases involving tissue destruction, loosening of hip joint replacements, periodontal disease, fibrotic disease, infarction and heart disease, liver and renal fibrosis, endometriosis, diseases related to the weakening of the extracellular matrix, heart failure, aortic aneurysms, CNS related diseases such as Alzheimer's disease and multiple sclerosis and hematological disorders, inflammatory diseases.

ADVANTAGE - (I) is inhibitors of metalloproteinases and inhibits MMPs such as MMP12 and MMP9, has beneficial potency, selectivity and pharmacokinetic properties; possess pharmacological activity in animals and thus potentially useful as pharmaceuticals.

AN.S DCR-1175755

CN.S 5-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one5-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

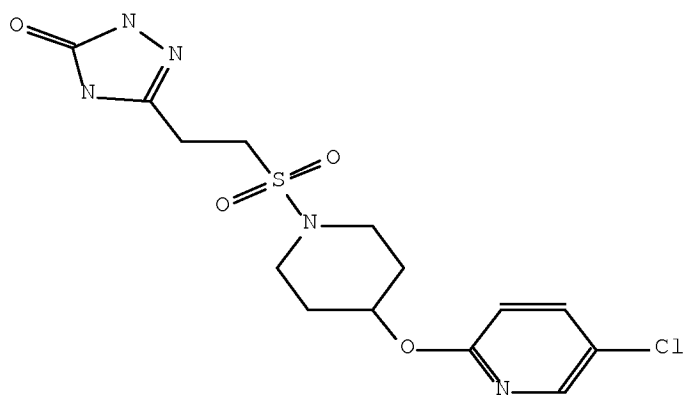
SDCN RAJXZN



AN.S DCR-1175756

CN.S 5-{2-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonyl]-ethyl}-2,4-dihydro-1,2,4-triazol-3-one5-{2-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonyl]-ethyl}-2,4-dihydro-[1,2,4]triazol-3-one

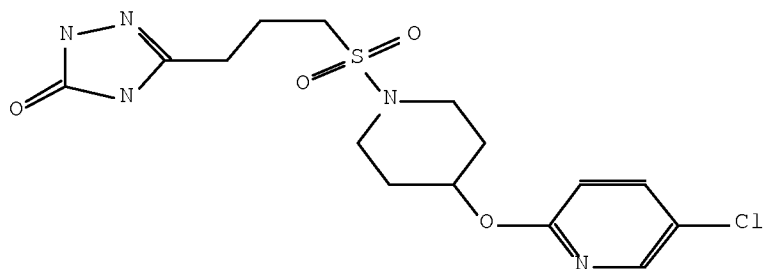
SDCN RAJXZO



AN.S DCR-1175757

CN.S 5-{3-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-1,2,4-triazol-3-one
5-{3-[4-(5-Chloro-pyridin-2-yloxy)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-[1,2,4]triazol-3-one

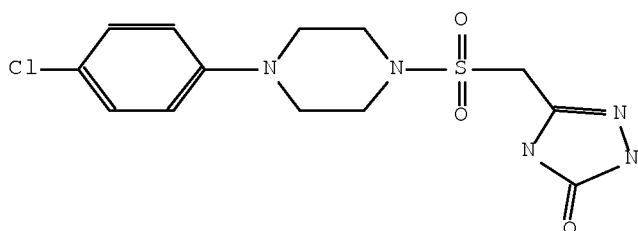
SDCN RAJXZP



AN.S DCR-1175758

CN.S 5-[4-(4-Chloro-phenyl)-piperazine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one
5-[4-(4-Chloro-phenyl)-piperazine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

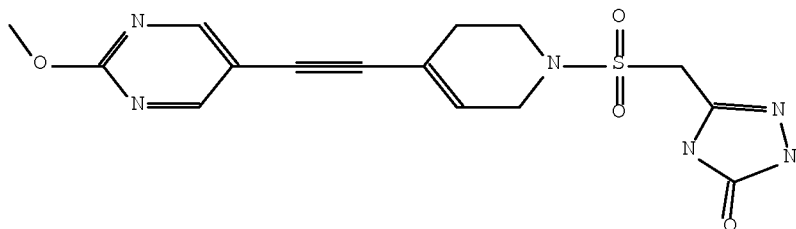
SDCN RAJXZQ



AN.S DCR-1175759

CN.S 5-[4-(2-Methoxy-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one5-[4-(2-Methoxy-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

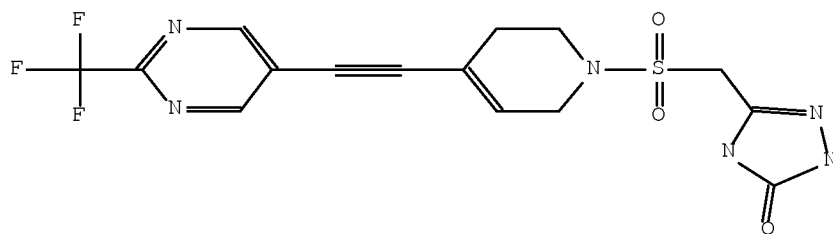
SDCN RAJXZR



AN.S DCR-1175760

CN.S 5-[4-(2-Trifluoromethyl-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one5-[4-(2-Trifluoromethyl-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

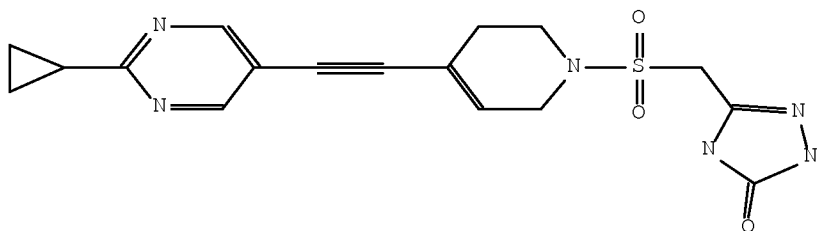
SDCN RAJXZS



AN.S DCR-1175761

CN.S 5-[4-(2-Cyclopropyl-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one5-[4-(2-Cyclopropyl-pyrimidin-5-ylethynyl)-3,6-dihydro-2H-pyridine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

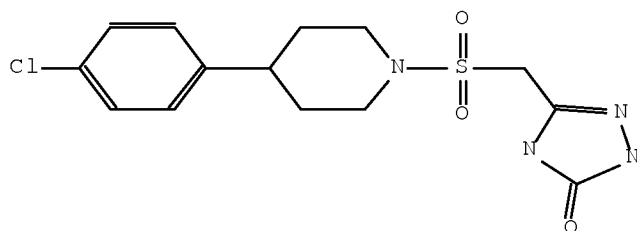
SDCN RAJXZT



AN.S DCR-1175762

CN.S 5-[4-(4-Chloro-phenyl)-piperidine-1-sulfonylmethyl]-2,4-dihydro-1,2,4-triazol-3-one
5-[4-(4-Chloro-phenyl)-piperidine-1-sulfonylmethyl]-2,4-dihydro-[1,2,4]triazol-3-one

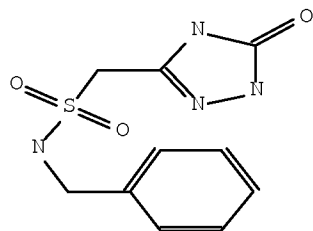
SDCN RAJXZU



AN.S DCR-1175763

CN.S N-Benzyl-C-(5-oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)-methanesulfonamide
N-Benzyl-C-(5-oxo-4,5-dihydro-1H-[1,2,4]triazol-3-yl)-methanesulfonamide

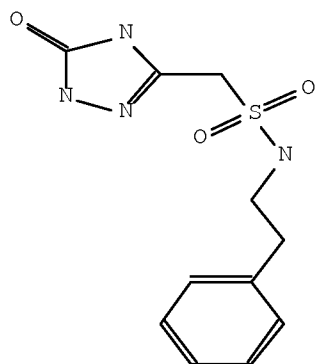
SDCN RAJXZV



AN.S DCR-1175764

CN.S C-(5-Oxo-4,5-dihydro-1H-1,2,4-triazol-3-yl)-N-phenethyl-methanesulfonamide
C-(5-Oxo-4,5-dihydro-1H-[1,2,4]triazol-3-yl)-N-phenethyl-methanesulfonamide

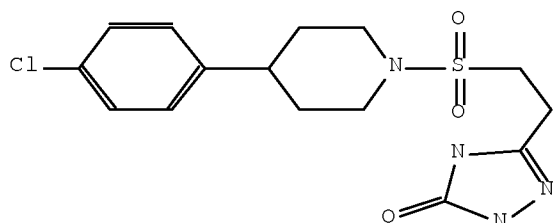
SDCN RAJXZW



AN.S DCR-1175765

CN.S 5-{2-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-ethyl}-2,4-dihydro-1,2,4-triazol-3-one
5-{2-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-ethyl}-2,4-dihydro-[1,2,4]triazol-3-one

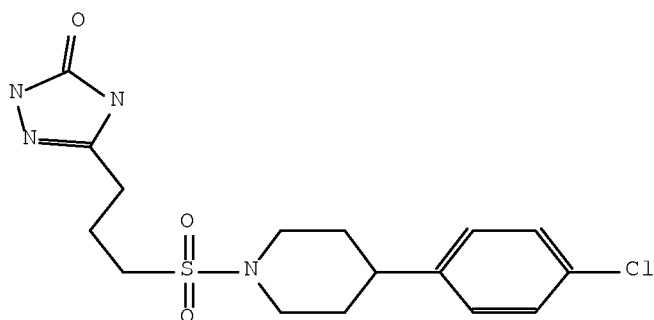
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AN.S DCR-1175766

CN.S 5-{3-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-1,2,4-triazol-3-one
5-{3-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-[1,2,4]triazol-3-one

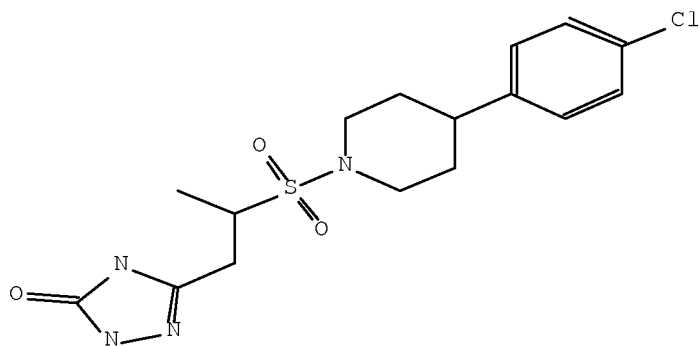
SDCN RAJXZY



AN.S DCR-1175767

CN.S 5-{2-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-1,2,4-triazol-3-one
5-{2-[4-(4-Chloro-phenyl)-piperidine-1-sulfonyl]-propyl}-2,4-dihydro-[1,2,4]triazol-3-one

SDCN RAJXZZ



L36 ANSWER 16 OF 17 BABS COPYRIGHT 2009 Elsevier Inf. Sys. on STN

AN 5704055 BABS [Full-text](#)

TI Synthesis of Azoles and Fused Azoles from α -Arylhydrazononitriles

AU Ibrahim, Mohamed Kamal Ahmed; El-Moghayar, Mohamed Riffat Hamza

SO Indian J.Chem.Sect.B (1987), 26(1-12), 832-835

CODEN: IJSBDB

DT Journal

LA English

SL English

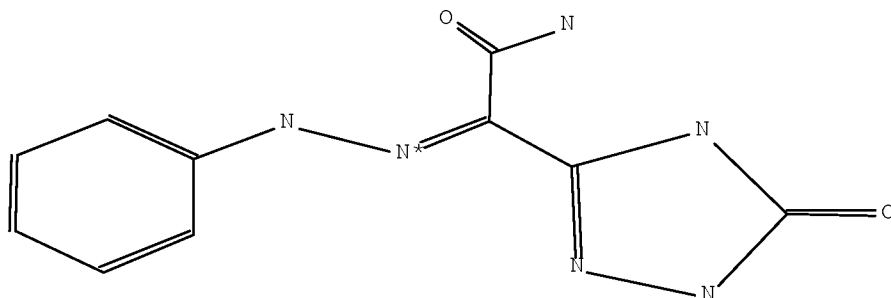
AB The reaction of α -arylhydrazononitriles (I) with phenylhydrazine, hydrazine hydrate, p-phenylenediamine, mercaptoacetic acid, and phenyl isothiocyanate gives amidrazone (IIa-c, III), pyrazolone (IVa-c), benzimidazole (X), 4-thiazolone (XIe,d) and 1,2,4-triazinethione (XII) derivatives respectively. Compound IIa reacts with ethyl chloroformate to give amidrazone V which on base-catalyzed cyclization affords the triazolone VI. However, it

Serial No.:10/593,543

reacts with nitrous acid to give the tetrazole VII. The condensation of IVa with ethyl α -chloroacetoacetate and IVe with α -cyanocinnamoneitrile furnishes the pyrazolo<1,5-a>imidazole (VIII) and pyrano<3,2-b>pyrazole (IX) derivatives respectively.

L36 ANSWER 17 OF 17 BEILSTEIN COPYRIGHT 2009 Elsevier Inf. Sys. on STN

Beilstein Records (BRN): 5574184
 Beilstein Pref. RN (BPR): 115998-45-3
 CAS Reg. No. (RN): 115998-45-3
 Chemical Name (CN): 5-(phenylhydrazono-(carbamoyl)-methyl)-1,2,4-triazol-3-one
 Autonom Name (AUN): 2-(5-oxo-4,5-dihydro-1H-<1,2,4>triazol-3-yl)-2-(phenyl-hydrazono)-acetamide
 Molec. Formula (MF): C10 H10 N6 O2
 Molecular Weight (MW): 246.23
 Lawson Number (LN): 30257, 16435
 Compound Type (CTYPE): heterocyclic
 Constitution ID (CONSID): 4886893
 Beilstein Citation (BSO): 6-26
 Entry Date (DED): 1993/02/12
 Update Date (DUPD): 1994/02/18



Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
BPR	Beilstein Preferred RN	1
RN	CAS Registry Number	1
CN	Chemical Name	1

Serial No.:10/593,543

AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	2
CTYPE	Compound Type	1
CONSID	Constitution ID	1
BSO	Beilstein Citation	1
DED	Entry Date	1
DUPD	Update Date	1
IR	Infrared Spectrum	1
MP	Melting Point	1
NMR	Nuclear Magnetic Resonance	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

All References:

ALLREF

1. Ibrahim, Mohamed Kamal Ahmed; El-Moghayar, Mohamed Riffat Hamza, Indian J.Chem.Sect.B, CODEN: IJSBDB, 26(1-12), <1987>, 832-835; BABS-5704055

Search History

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L1          STRUCTURE UPLOADED
L2          0 SEA SSS SAM L1

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L3          2 SEA SPE=ON  ABB=ON  PLU=ON  US2006-593543/APPS

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          866602-86-0/BI OR 866602-88-2/BI OR 866602-89-3/BI OR 866602-90
          -6/BI OR 9004-06-2/BI)
L5          28 SEA SPE=ON  ABB=ON  PLU=ON  L4 AND NR>=2
L6          39 SEA SSS FUL L1
L7          15 SEA SPE=ON  ABB=ON  PLU=ON  L6 AND L4

FILE 'HCAPLUS' ENTERED AT 13:53:48 ON 02 OCT 2009
L8          15 SEA SPE=ON  ABB=ON  PLU=ON  L6
L9          535 SEA SPE=ON  ABB=ON  PLU=ON  ERIKSSON A?/AU
L10         10 SEA SPE=ON  ABB=ON  PLU=ON  LEPISTO M?/AU
L11         1 SEA SPE=ON  ABB=ON  PLU=ON  (L10 OR L9) AND L8

FILE 'WPIX' ENTERED AT 14:05:29 ON 02 OCT 2009
L12         1 SEA SSS SAM L1
L13         13 SEA SSS FUL L1
L14         1 SEA SPE=ON  ABB=ON  PLU=ON  L13/DCR
L15         1 SEA SPE=ON  ABB=ON  PLU=ON  (L10 OR L9) AND L14

FILE 'BEILSTEIN' ENTERED AT 14:06:35 ON 02 OCT 2009
L16         1 SEA SPE=ON  ABB=ON  PLU=ON  L6
L17         1 SEA SPE=ON  ABB=ON  PLU=ON  L6
L18         1 SEA SPE=ON  ABB=ON  PLU=ON  L17 AND BABSAN/FA
          SEL BABSAN

FILE 'BABS' ENTERED AT 14:07:18 ON 02 OCT 2009
L19         1 SEA SPE=ON  ABB=ON  PLU=ON  5704055/BABSAN

FILE 'MARPAT' ENTERED AT 14:08:06 ON 02 OCT 2009
L20         4 SEA SSS SAM L1
L21         132 SEA SSS FUL L1

FILE 'REGISTRY' ENTERED AT 14:11:53 ON 02 OCT 2009
L22         STRUCTURE UPLOADED

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Serial No.:10/593,543

L23 STRUCTURE UPLOADED
L24 0 SEA SSS SAM L23
L25 0 SEA SSS FUL L23

FILE 'MARPAT' ENTERED AT 14:19:06 ON 02 OCT 2009

L26 STRUCTURE UPLOADED
L27 6 SEA SSS SAM L26
L28 93 SEA SSS FUL L26
L29 STRUCTURE UPLOADED
L30 6 SEA SUB=L28 SSS SAM L29
L31 87 SEA SUB=L28 SSS FUL L29

FILE 'MARPAT' ENTERED AT 14:52:40 ON 02 OCT 2009

L32 STRUCTURE UPLOADED

FILE 'HCAPLUS, WPIX' ENTERED AT 15:05:48 ON 02 OCT 2009

L33 1 DUP REM L11 L15 (1 DUPLICATE REMOVED)

FILE 'HCAPLUS' ENTERED AT 15:06:05 ON 02 OCT 2009

L34 14 SEA SPE=ON ABB=ON PLU=ON L8 NOT L11

FILE 'WPIX' ENTERED AT 15:06:20 ON 02 OCT 2009

L35 0 SEA SPE=ON ABB=ON PLU=ON L14 NOT L15

FILE 'HCAPLUS, WPIX, BABS, BEILSTEIN' ENTERED AT 15:07:19 ON 02 OCT 2009

L36 17 DUP REM L34 L14 L19 L17 (0 DUPLICATES REMOVED)